

## **Historic, Archive Document**

Do not assume content reflects current  
scientific knowledge, policies, or practices.

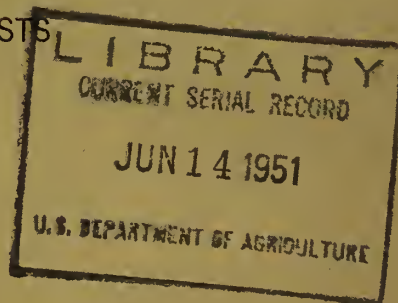




FEDERAL - STATE COOPERATIVE  
SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for  
**Oregon**  
By

Division of Irrigation, Soil Conservation Service  
United States Department of Agriculture  
and  
Oregon Agricultural Experiment Station



As of

MAY. 1, 1951

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.



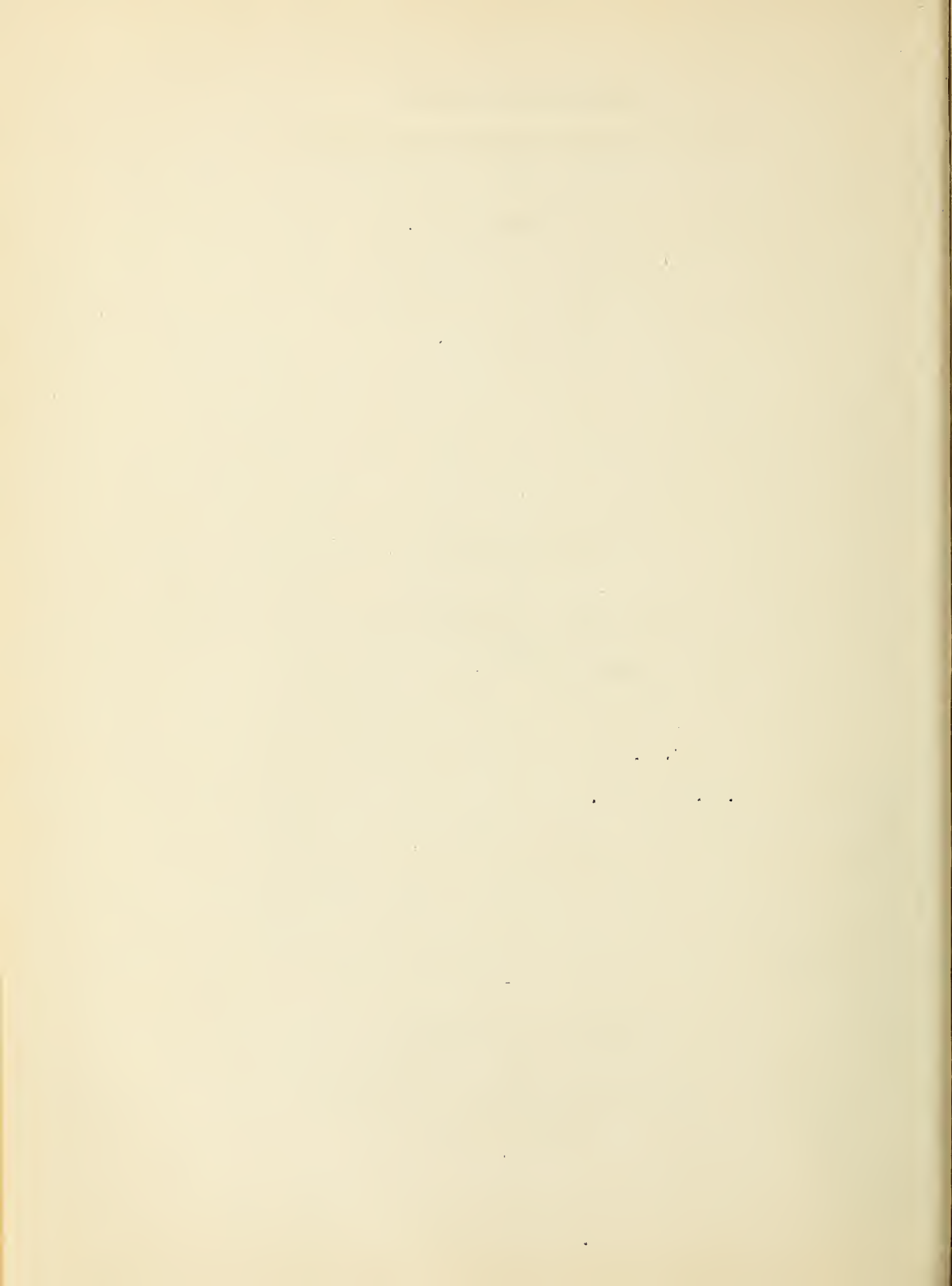
FEDERAL-STATE COOPERATIVE  
SNOW SURVEYS AND IRRIGATION WATER FORECASTS  
FOR  
OREGON

Report Prepared

by

W. T. Frost, Hydraulic Engineer  
and  
R. T. Beaumont, Assistant Water Forecaster

Division of Irrigation  
Soil Conservation Service  
and  
Oregon Agricultural Experiment Station  
P. O. Box 1149  
Medford, Oregon



May 1, 1951

## REVISED WATER SUPPLY OUTLOOK

Revisions in Oregon's 1951 water supply prospects, occasioned by the recent April drought, indicate most of the state will receive "good" supplies although late season deficiencies of water will probably occur on many small streams with low elevation watersheds. Stored water in reservoirs is now 105 percent average although in a few cases only a minimum supply is available.

Snow survey records, as of May 1, clearly show the affects of excessively heavy April thaws. Present snow cover contains about 15 percent less water than average and about 30 percent less than last year at this date. High elevation snow still retains satisfactory water supplies as indicated by surveys at Phlox Point on Mt. Hood, Annie Spring near Crater Lake and Aneroid Lake in the Wallowa Mountains. At Phlox Point the snow contains 65.7 inches of water compared with 100.1 inches last year and an average of 60.0 inches. Snow at Annie Springs contains 46.8 inches of water compared with 46.5 last year and an average of 38.6 inches. At Aneroid Lake the snow contains 37.4 inches of water compared with 46.8 inches last year and an average of 33.0 inches. Low elevation snow is notably below average.

State-wide precipitation during April was only about 50 percent normal varying from 28 percent normal in the Wallowa Mountain region and 37 percent normal in the Willamette Valley to 80 percent normal in the South-central Oregon region. April temperatures were abnormally high with Portland reporting 4.0 degrees above the mean, Medford +6.0, Burns +5.7 and Lakeview +8.1.

Total water stored in the larger Oregon reservoirs is now 7 percent greater than at this date last year, 8 percent greater than in 1949 and 5 percent greater than the 10-year average, 1940-49.

Revisions in streamflow forecasts have been made in accordance with the unusual melting conditions experienced in April. Flow of many small streams with low elevation watersheds has already passed the peak and will drop off rapidly. Deficient water supplies can be expected in these cases, but streams with high elevation watersheds should have good supplies this year.

See pages 2, 3 and 3a for streamflow forecasts.



REVISED STREAMFLOW FORECASTS, MAY 1, 1951

The following summarized runoff forecasts are based on mountain snow cover and on the assumption that precipitation and temperature during the remainder of the runoff season will be approximately normal. Appreciable deviations from normal of temperature and/or precipitation, especially during May or June, will correspondingly modify these forecasts.

BASIN AND STREAM	Apr.-Sept., inc. Streamflow in Thous. cu. Ft.				
	Forecast		Measured Runoff* 10-yr. avg.		
	1951	1950	1949	1948	1940-49
<u>NORTH CENTRAL OREGON</u>					
Hood River, W. Fk. near Dec	190.0	228.6	225.1	158.1	142.4
White R. below Tygh Valley	180.0	a	265.6	177.0	159.8
Hood R. at Powderdale plus Power Canal	350.0	497.6	483.2	338.9	289.5
<u>UMATILLA-WALLA WALLA</u>					
Walla Walla R. So. Fk. nr. Milton	65.0	a	84.8	102.1	68.6
Umatilla R. near Gibbon	85.0	106.7	110.1	148.7	87.7
Umatilla R. at Pendleton	160.0	a	212.9	311.3	171.3
McKay Cr. above McKay Reservoir	25.0	a	22.7	63.4	29.6
<u>NORTHEASTERN OREGON</u>					
Grande Ronde R. nr. LaGrande	145.0	a	191.5	366.2	182.2
Catherine Creek near Union	70.0	a	73.0	109.9	70.2
Bear Creek near Wallowa	75.0	a	73.6	93.5	70.5
Lostine R. near Lostine	135.0	a	130.2	153.5	122.9
Hurricane Cr. near Joseph	47.0	a	48.6	59.4	45.2
Wallowa R. E. Fk. plus Power Pl.	12.0	a	11.3	15.7	11.3
Imnaha River at Imnaha	350.0	a	254.0	451.2	295.7
Powder River at Salisbury	70.0	a	70.0	78.6	62.3
Burnt R. nr. Herford (Natural Flow)	45.0	a	47.0	62.7	40.3
<u>EASTERN OREGON</u>					
Malheur R. Mid. Fk. nr. Drewsey	76.0	70.0	68.5	74.0	75.1
Malheur R. N. Fk. at Boulah	64.0	57.0	56.5	64.4	60.3
Owyhee R. above Owyhee Reservoir	575.0	320.0	456.4	237.3	397.0
John Day R. at Prairie City, combined with Power Canal	60.0	a	44.9	91.4	51.8
John Day R. Mid. Fk. at Ritter	150.0	a	123.2	223.7	121.4
John Day R. No. Fk. near Dale	300.0	a	288.2	425.0	228.8
Strawberry Cr. nr. Prairie City	8.0	a	8.3	11.0	8.4
<u> HARNEY BASIN</u>					
Silvies R. near Burns	75.0	a	79.1	133.1	94.2
Donner und Blitzen R. nr. French- glon	85.0	a	45.9	81.4	63.5
Trout Creek near Denio	10.0	a	5.1	8.4	8.6

\* - Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer

a - Discharge data not available



Streamflow Forecasts, May, 1951 (Cont'd.)

BASIN AND STREAM	Apr.-Sept., inc. Streamflow in Thous. cu. ft.				
	Forecast 1951	Forecast 1950	Measured 1949	Runoff* 1948	10-yr. avg. 1940-49
<u>CENTRAL OREGON</u>					
Ochoco Reservoir Net Inflow	24.0	a	33.3	72.3	27.8
Crescent Lake Net Inflow	25.0	a	29.4	27.4	16.2
Little Deschutes R. nr. Lapine	110.0	a	122.1	105.1	75.0
Odell Creek near Crescent	32.0	a	34.9	34.7	26.8
Deschutes R. below Snow Creek	70.0	a	76.2	78.2	53.0
Crane Prairie Reservoir Inflow	140.0	a	151.6	141.9	107.2
Deschutes R. at Pringle Falls	310.0	a	285.9	262.4	254.0
Deschutes R. at Bonham Falls	560.0	a	550.1	507.2	455.2
Tumalo Creek and C. S. Canal	56.0	a	58.1	53.2	45.4
Squaw Creek near Sisters	62.0	a	50.8	56.5	45.0
<u>SOUTHCENTRAL OREGON</u>					
Chewaucan R. nr. Paisley	74.0 <sup>b</sup>	67.2 <sup>b</sup>	65.0 <sup>b</sup>	74.5 <sup>b</sup>	61.8 <sup>b</sup>
Deep Creek Above Adel	70.0 <sup>b</sup>	70.3 <sup>b</sup>	71.4 <sup>b</sup>	70.8 <sup>b</sup>	60.4 <sup>b</sup>
<u>KLAMATH BASIN</u>					
Sprague R. nr. Chiloquin	250.0	207.3	184.0	239.9	220.1
Williamson R. below Sprague R.	410.0	354.4	320.6	356.3	360.6
Upper Klamath Lake Net Inflow	540.0	423.9	396.7	461.5	463.6
Clear Lake Reservoir Net Inflow	31.0	33.5	34.7	70.2	39.0
Gerber Reservoir Net Inflow	20.0	14.7	20.2	21.9	17.6
<u>SOUTHERN OREGON</u>					
Applegate R. near Ruch	80.0	a	118.4	166.3	111.1
Hyatt Reservoir Net Inflow	4.0	a	7.6	9.1	5.5
Fourmile Lake Net Inflow	6.0	a	8.5	11.0	7.5
Little Butte Cr. N. Fk. below Fish Lake (Natural Flow)	12.0	a	18.9	16.2	13.4
Rogue R. N. Fk. above Prospect	340.0	387.6	375.5	343.7	287.2
Rogue R. Mid. Fk. plus Power Canal	80.0	a	91.1	83.1	70.1
Rogue R. below South Fork	720.0	a	790.8	732.5	622.1
Rogue R. at Grants Pass	910.0	a	975.0	1138.1	808.2
Clearwater R. above Trap Creek	60.0	a	71.8	67.4	59.9
No. Umpqua R. below Lake Creek	155.0	a	183.0	174.3	154.2
<u>WILLAMETTE VALLEY</u>					
Willamette R. Mid. Fk. at Lula	960.0	a	1019.2	1025.9	755.0
McKenzie R. at McKenzie Bridge	610.0	771.8	716.4	646.4	525.4
McKenzie River near Vida	1300.0	1725.2	1516.7	1419.5	1116.7
Clackamas R. at Big Bottom	180.0	a	177.5	231.1	151.0
Clackamas R. near Cazadero	830.0	a	1159.0	843.6	732.6

- \* - Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer  
a - Discharge data not available  
b - April-June rather than April-Sept.

... ..  
... ..  
... ..

... ..  
... ..  
... ..  
... ..  
... ..  
... ..  
... ..  
... ..

... ..  
... ..  
... ..

... ..  
... ..  
... ..  
... ..  
... ..

... ..  
... ..  
... ..  
... ..  
... ..  
... ..  
... ..  
... ..  
... ..  
... ..

... ..  
... ..  
... ..  
... ..  
... ..

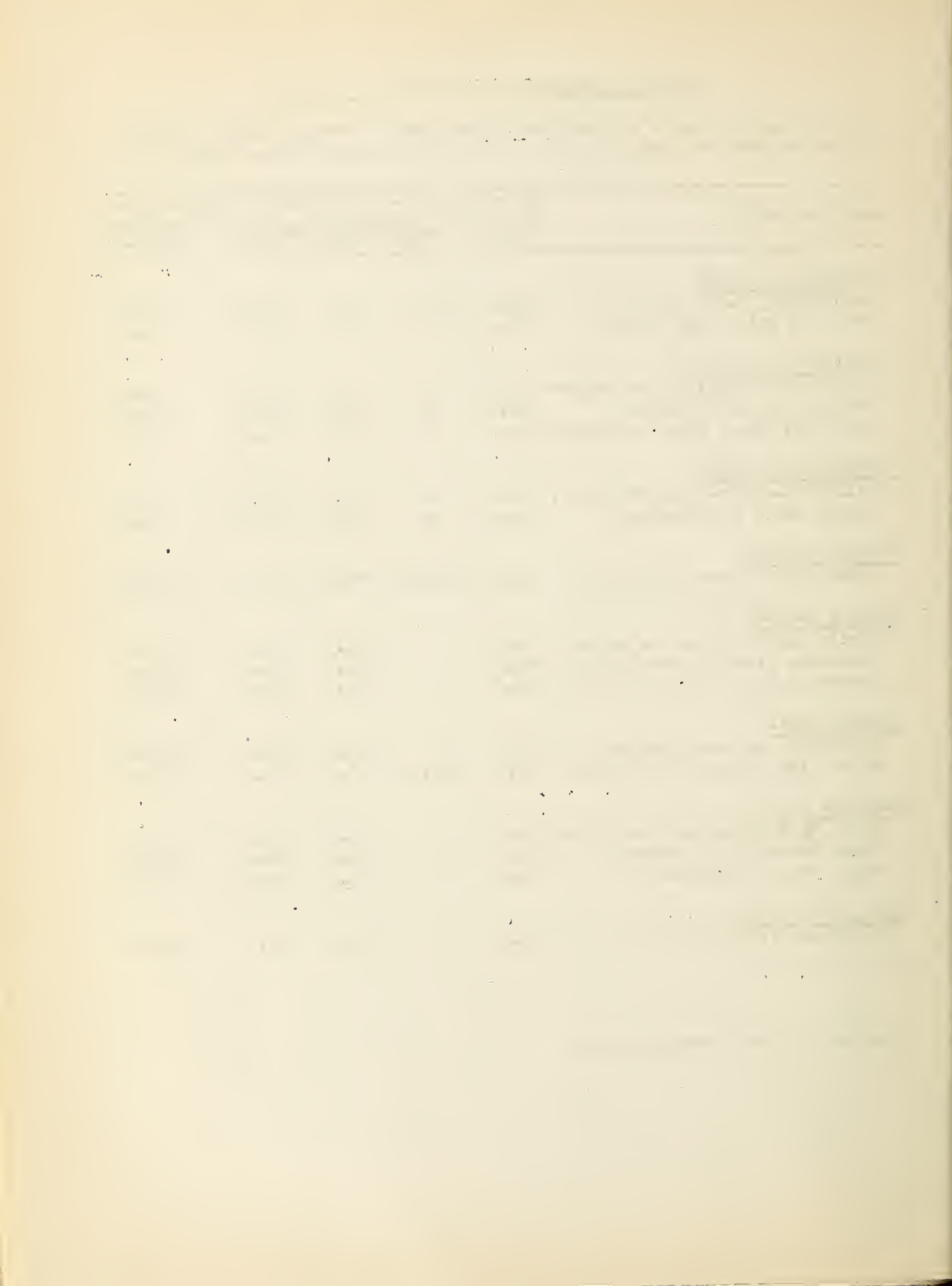
... ..  
... ..  
... ..  
... ..

OREGON STREAMFLOW FORECASTS, MAY 1, 1951

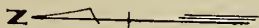
The following forecasts are for the period April 1 through July 1 and will be of value both to irrigationists and hydro-power generating interests:

BASIN AND STREAM	Apr.-July, Inc. Streamflow in Thous. A.F.				
	Forecast 1951	Measured 1950	Runoff 1949	Runoff 1948	10-yr. avg. 1940-49
<u>NORTHCENTRAL OREGON</u>					
Hood River, W.Fk. near Dee	165.0	199.6	197.2	134.4	123.0
White R. below Tygh Valley	155.0	a	245.6	159.1	125.2
<u>UMATILLA-WALLA WALLA</u>					
Walla Walla R. So. Fk. nr. Milton	54.0	a	70.4	86.1	56.3
Umatilla R. at Pendleton	155.0	a	208.5	304.9	166.2
McKay Cr. above McKay Reservoir	24.7	a	22.6	63.2	29.3
<u>NORTHEASTERN OREGON</u>					
Wallowa R. E. Fk. plus Power Pl.	10.0	a	9.4	13.1	9.1
Powder River at Salisbury	67.0	a	68.8	76.2	60.1
<u>EASTERN OREGON</u>					
Owyhee above Owyhee Reservoir	540.0	299.6	472.1	234.8	378.9
<u>CENTRAL OREGON</u>					
Little Deschutes R. nr. Lapine	98.0	a	106.8	90.3	66.7
Deschutes R. at Benham Falls	380.0	a	361.9	316.3	306.6
Deschutes R. at Pringle Falls	205.0	a	162.8	132.1	155.9
<u>KLAMATH BASIN</u>					
Williamson R. below Sprague R.	345.0	a	257.9	293.4	295.9
Upper Klamath Lake Net Inflow	455.0	333.1	317.0	367.8	363.6
<u>SOUTHERN OREGON</u>					
Rogue R. Mid. Fk. plus Power Canal	54.0	a	74.9	66.1	55.8
Rogue R. N. Fk. above Prospect	280.0	a	324.1	289.7	239.0
Rogue River Below So. Fk.	585.0	a	664.4	598.3	502.2
<u>WILLAMETTE VALLEY</u>					
Clackamas R. at Big Bottom	135.0	a	195.6	141.8	120.8

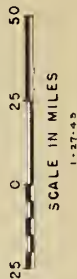
a - Discharge data not available



# IMPORTANT OREGON RESERVOIRS



RESERVOIR NAME	NUMBER
Agency Valley	1354
Antelope	1230
Clear Lake	823
Clear Lake	36R1
Cold Springs	22R1
Cottage Grove	5220
Cottonwood	8115
Crane Prairie	3220
Crescent Lake	322
Drew Creek	814
Emigrant Gap	7267
Fern Ridge	5413
Fish Lake	7237
Four Mile Lake	8321
Gerber	8215
Hyatt Prairie	8320
McKay	2231
Ochoco	3420
Owyhee	1234
Rack Creek	36R3
Thief Valley	1514
Thompson Valley	9411
Unity	1415
Upper Klamath Lake	832
Wallowa Lake	186
Warm Springs	1322
Wickiup	3137
Willow Creek No. 3	1323





STATUS OF RESERVOIR STORAGE, MAY 1, 1951

BASIN and STREAM	RESERVOIR	USABLE CAPACITY (Thous. A.F.)	THOUS. A.F. IN STORAGE ABOUT MAY 1	1951	1950	1949	1948	1940-49
UPPER COLUMBIA DRAINAGE								
LOWER SNAKE IN OREGON								
<u>Owyhee</u>	Antelope	36.5	N.R.	- -	- -	- -	- -	- -
	Owyhee	715.0	715.0	644.7	592.7	481.8	658.3	
<u>Malheur</u>	Warm Springs	191.0	120.4	72.4	98.3	70.2	150.3	
	Agency Valley	60.0	50.0	47.5	57.1	52.2	57.7	
	Willow Creek No.3	21.0	N.R.	- -	- -	- -	- -	
<u>Burnt</u>	Unity	25.2	23.5	20.8	23.4	19.4	22.9	
<u>Powder</u>	Thief Valley	17.4	N.R.	17.4 <sup>d</sup>	12.8 <sup>d</sup>	17.4 <sup>d</sup>	17.1 <sup>d</sup>	
<u>Grande Ronde</u>	Wallowa Lake	40.9	21.2	12.3	21.1	19.3	24.4	
LOWER COLUMBIA DRAINAGE								
<u>Umatilla</u>	McKay	74.0	68.2	67.0	65.5	71.9	66.6	
	Cold Springs	50.0	48.1	49.9	48.0	49.7	48.4	
<u>Deschutes</u>	Ochoco	46.0	46.3	33.6	39.0	41.5	33.5	
	Crescent Lake	54.9	48.1	51.8	53.4	49.9	40.4	
	Crane Prairie	55.3	57.4	50.7	42.6	32.7	39.2	
	Wickiup	180.0	183.7	175.0	183.9	141.8	86.6 <sup>e</sup>	
<u>Willamette</u>	Cottage Grove	30.1 <sup>b</sup>	23.8	23.7	26.7	29.6	26.9 <sup>e</sup>	
	Fern Ridge	94.2 <sup>b</sup>	72.6	86.1	73.4	93.3	72.3 <sup>f</sup>	
	Donna	70.5 <sup>b</sup>	49.8	53.2	- -	- -	- -	
WEST COAST DRAINAGE								
<u>Rogue</u>	Fish Lake	7.8	6.9	5.4	5.9	4.0	5.2	
	Fourmile Lake <sup>a</sup>	16.1 <sup>a</sup>	12.7	11.0	9.6	2.4	8.2	
	Emigrant Gap	8.3	7.3	8.4	8.2	8.3	8.2	
	Hyatt Prairie <sup>a</sup>	16.1 <sup>a</sup>	9.6	8.1	12.3	6.0	8.8	
<u>Klamath</u>	Upper Klamath Lake	584.0 <sup>c</sup>	557.5	531.4	510.0	466.3	479.3	
	Gerber	94.0	59.9	51.4	47.7	40.9	60.3	
	Clear	440.2	145.5	164.0	184.4	176.6	271.9	
<u>Goose Lake</u>	Cottonwood	4.1	4.6	4.3	3.5	3.3	3.2 <sup>g</sup>	
	Drew	62.5	63.2	62.5	62.5	40.8	54.7 <sup>h</sup>	

N.R. - No Report

a - By Ditch to Rogue River side  
from Klamath Drainage

b - Storage space reserved for flood control

c - Based on gage zero elevation of 4135.0

d - Data partly estimated - Subject to error

e - 1943-49

f - 1942-49

g - Excl. 1942, 43

h - Excl. 1942



# VALLEY PRECIPITATION<sup>a</sup>

DRAINAGE DIVISIONS	CURRENT YEAR		LAST YEAR	
	Oct. 1, 1950 - May 1, 1951		Oct. 1, 1949 - May 1, 1950	
	P	D	P	D
Southeastern	7.42	+0.81	6.55	-0.63
Southcentral	9.81	+2.71	5.21	-1.95
Central	11.55	+3.31	10.25	+0.42
Columbia River	17.23	+5.24	13.31	+1.11
Wallowa Mountains	10.62	-1.56	11.26	+0.20
Blue Mountains	9.99	+1.18	11.36	-0.59
Southern	29.76	+9.47	19.35	-0.31
Willamette Valley	59.67	+16.73	52.70	+0.12
<p>P - Inches Precipitation      D - Inches Departure from normal</p>				

<u>Southeastern</u>	- Malheur and Owyhee drainages
<u>Southcentral</u>	- Interior Basin drainages and Goose Lake
<u>Central</u>	- Deschutes and Crooked drainages
<u>Columbia River</u>	- Lower valleys of the Walla Walla, Umatilla, John Day, Deschutes and Hood River drainages
<u>Wallowa Mountains</u>	- Imnaha, Wallowa, Catherine, Eagle and Pine drainages
<u>Blue Mountains</u>	- Upper valleys of the Burnt, Powder, Grande Ronde, Umatilla, Walla Walla, John Day, Silvies and Malheur drainages
<u>Southern</u>	- Umpqua, Rogue and Klamath drainages
<u>Willamette Valley</u>	- All Willamette drainages

Note: Stations used for determining the averages for the current year are not necessarily the same as those used last year.

a - Preliminary data computed from Weather Bureau records



OREGON SNOW SURVEYS, MAY, 1951

DRAINAGE BASIN and SNOW COURSE	LOCATION		SNOW COVER MEASUREMENTS					
	Number or State	Sec. Twp. Range Elev.	Date of Survey	Snow Depth (In.)	Water Content (In.)		Past Record Av. Water Content (Inches)	
					Same Approx. Date	1950		1949

U P P E R C O L U M B I A D R A I N A G E

L O W E R S N A K E I N O R E G O N

OMYHEE RIVER

Silver City Idaho 6 5S 3W 6400 5-3 3.0 1.2 12.1 5.3 5 3.5

BURNT RIVER

Blue Mountain Summit 141 6 12S 36E 5098 4-29 0.0 0.0 1.4 No previous May surveys

IMNAHA RIVER

Aneroid Lake No. 1 183 16 4S 45E 7480 5-1 87.5 37.4 46.8 36.7 7 33.0  
Aneroid Lake No. 2 183A 16 4S 45E 7000 5-1 68.2 28.2 35.0 26.1 2 30.0

GRANDE RONDE RIVER

Aneroid Lake No. 1 183 16 4S 45E 7480 5-1 87.5 37.4 46.8 36.7 7 33.0  
Aneroid Lake No. 2 183A 16 4S 45E 7000 5-1 68.2 28.2 35.0 26.1 2 30.0  
Meacham 221 24&25 1S 35E 4300 5-1 0.0 0.0 2.6 4.1 3  
Tollgate 212 32 4N 38E 5070 5-1 24.6 10.0 30.1 No previous May surveys

L O W E R C O L U M B I A D R A I N A G E

WALLA WALLA RIVER

Tollgate 212 32 4N 38E 5070 5-1 24.6 10.0 30.1 No previous May surveys

1	100	100	100	100
2	100	100	100	100
3	100	100	100	100
4	100	100	100	100
5	100	100	100	100
6	100	100	100	100
7	100	100	100	100
8	100	100	100	100
9	100	100	100	100
10	100	100	100	100
11	100	100	100	100
12	100	100	100	100
13	100	100	100	100
14	100	100	100	100
15	100	100	100	100
16	100	100	100	100
17	100	100	100	100
18	100	100	100	100
19	100	100	100	100
20	100	100	100	100
21	100	100	100	100
22	100	100	100	100
23	100	100	100	100
24	100	100	100	100
25	100	100	100	100
26	100	100	100	100
27	100	100	100	100
28	100	100	100	100
29	100	100	100	100
30	100	100	100	100
31	100	100	100	100
32	100	100	100	100
33	100	100	100	100
34	100	100	100	100
35	100	100	100	100
36	100	100	100	100
37	100	100	100	100
38	100	100	100	100
39	100	100	100	100
40	100	100	100	100
41	100	100	100	100
42	100	100	100	100
43	100	100	100	100
44	100	100	100	100
45	100	100	100	100
46	100	100	100	100
47	100	100	100	100
48	100	100	100	100
49	100	100	100	100
50	100	100	100	100
51	100	100	100	100
52	100	100	100	100
53	100	100	100	100
54	100	100	100	100
55	100	100	100	100
56	100	100	100	100
57	100	100	100	100
58	100	100	100	100
59	100	100	100	100
60	100	100	100	100
61	100	100	100	100
62	100	100	100	100
63	100	100	100	100
64	100	100	100	100
65	100	100	100	100
66	100	100	100	100
67	100	100	100	100
68	100	100	100	100
69	100	100	100	100
70	100	100	100	100
71	100	100	100	100
72	100	100	100	100
73	100	100	100	100
74	100	100	100	100
75	100	100	100	100
76	100	100	100	100
77	100	100	100	100
78	100	100	100	100
79	100	100	100	100
80	100	100	100	100
81	100	100	100	100
82	100	100	100	100
83	100	100	100	100
84	100	100	100	100
85	100	100	100	100
86	100	100	100	100
87	100	100	100	100
88	100	100	100	100
89	100	100	100	100
90	100	100	100	100
91	100	100	100	100
92	100	100	100	100
93	100	100	100	100
94	100	100	100	100
95	100	100	100	100
96	100	100	100	100
97	100	100	100	100
98	100	100	100	100
99	100	100	100	100
100	100	100	100	100

OREGON SNOW SURVEYS, MAY, 1951

DRAINAGE BASIN and SNOW COURSE	LOCATION			SNOW COVER MEASUREMENTS						
	Number or State	Sec. Twp. Range Elev.	Date of Survey	Snow Depth (In.)	Water Content (In.)			Years of Record	Past Record Av. Water Content (Inches)	
					1951	1950	Same Approx. Date 1949			
UMATILLA RIVER										
Emigrant Springs	222	29 1N 35E	3925	5-1	0.7	0.3	0.0	- -	3	1.5
Meacham	221	24&25 1S 35E	4300	5-1	0.0	0.0	2.6	- -	3	4.1
Tollgate	212	32 4N 38E	5070	5-1	24.6	10.0	30.1	No previous	May surveys	
JOHN DAY RIVER										
Blue Mountain Summit	141	6 12S 36E	5098	4-29	0.0	0.0	1.4	No previous	May surveys	
DESCHUTES RIVER										
Cascade Summit	321	7 23S 6E	4880	5-5	47.5	22.2	45.1	31.7	5	33.9
Clear Lake	361	29 4S 9E	3500	5-8	12.7 *	6.2	23.8	- -	2	21.1
Crescent Lake	325	11 24S 6E	4760	5-1	0.0	0.0	13.0	No previous	May surveys	
Hogg Pass	351	24 13S 7½E	4755	4-30	86.9	47.6	58.7	65.3	4	59.9
New Dutchman Flat	324A	21 18S 9E	6400	5-2	119.4	60.2	61.6	60.7	8	60.4
Three Creeks Meadow	331	3 17S 9E	5600	5-2	37.0	18.1	21.7	16.9	2	19.3
Windigo Pass	744	20 25S 6E	5800	5-1	105.6	48.2	53.3	50.0	2	51.6
Willamette Pass	323	21 24S 5½E	5600	5-1	96.6	43.8	52.3	46.1	2	49.2
SANDY RIVER										
Clear Lake	361	29 4S 9E	3500	5-8	12.7 *	6.2	23.8	- -	2	21.1
Phlox Point-Mt. Hood	452	6 3S 9E	5600	5-2	129.9	65.7	100.1	89.1	12	60.0
Still Creek	451	25 3S 8½E	3700	5-2	42.2	20.5	40.2	29.8	11	15.4
CLACKAMAS RIVER										
Peavine Ridge	591	14&15 6S 7E	3500	5-1	41.6	18.9	31.9	28.4	6	17.6

\* - Telegraphic - Subject to minor revision



OREGON SNOW SURVEYS, MAY, 1951

DRAINAGE BASIN and SNOW COURSE	LOCATION		SNOW COVER MEASUREMENTS									
			Water Content (in.)		Same approx. Date		1950		1949		Years of Record	
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (in.)	1951	1950	1949	Record	Past record av. water content (inches)
WILLAMETTE RIVER												
Cascade Summit	321	7	23S	6E	4880	5-5	47.5	22.2	45.1	31.7	5	33.9
Hogg Pass	351	24	13S	7 $\frac{1}{2}$ E	4755	4-30	86.9	47.6	58.7	65.3	4	59.9
Marion Forks	553	28	11S	7E	2730	4-30	0.0	0.0	18.5	-	2	9.8
Santiam Junction	552	14	13S	7E	3990	4-30	14.1	6.1	34.4	21.3	3	22.4
Willamette Pass	323	21	24S	5 $\frac{1}{2}$ E	5600	5-1	96.6	43.8	52.3	46.1	2	49.2
W E S T C O A S T D R A I N A G E												
UMFQUA RIVER												
Diamond Lake	743	29	27S	6E	5315	4-29	30.0	12.8	18.9	15.4	12	16.1
Windigo Pass	744	20	25S	6E	5800	5-1	105.6	48.2	53.3	50.0	2	51.6
ROGUE RIVER												
Annie Spring	831	19	31S	6E	6018	5-1	101.4	46.8	46.5	43.8	12	38.6
Billie Creek Divide	722	30	36S	5E	5300	5-1	T	T	21.0	22.3	4	24.8
Fish Lake	725	3	37S	4E	4865	5-1	0.0	0.0	7.6	6.0	2	6.8
Hyatt Prairie	723	15	39S	3E	4900	5-1	0.0	0.0	0.0	-	2	4.4
Park Headquarters	838	8	31S	6E	6450	5-1	131.4	61.4	60.0	59.0	7	57.9
Silver Burn	7219	30	30S	4E	3720	5-1	0.0	0.0	6.5	No previous survey	May survey	
South Fork Canal	7218	12	33S	3E	3500	5-1	0.0	0.0	0.0	No previous survey	May survey	

KLAMATH LAKE BASIN

Annie Spring	831	19	31S	6E	6018	5-1	101.4	46.8	46.5	43.8	12	38.6
Billie Creek Divide	722	30	36S	5E	5300	5-1	T	T	21.0	22.3	4	24.8



DRAINAGE BASIN and SNOW COURSE	LOCATION			SNOW COVER MEASUREMENTS								
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (In.)	Water Content (In.)			Past Record av. water Content (Inches)	
								1951	1950	1949		
KLAMATH LAKE BASIN (Cont'd.)												
Chemult No. 1	834	21	27S	8E	4760	5-7	0.0	0.0	1.2	0.0	5	0.3
Hyatt Prairie	723	15	39S	3E	4900	5-1	0.0	0.0	0.0	-	2	4.4
Lake of the Woods	835	11	37S	5E	4960	5-3	0.7	0.2	-	3.8	5	5.9
Park Headquarters	838	8	31S	6E	6450	5-1	131.4	61.4	60.0	59.0	7	57.9
Quartz Mountain No. 1	811	2	38S	16E	5320	5-1	0.0	0.0	0.0	No previous	May survey	
GOOSE LAKE BASIN												
Quartz Mountain No. 1	811	2	38S	16E	5320	5-1	0.0	0.0	0.0	No previous	May survey	
HOOD RIVER												
Greenpoint Reservoir	433	28	2N	9E	3400	4-14	24.8	8.8	31.7	-	2	22.6
Tilly Jane-Mt. Hood	432	15	2S	9E	6000	4-8	128.0	58.0	59.1	-	2	50.0
WILLAMETTE VALLEY												
Mary's Peak	541	21	12S	7W	3620	4-21	16.3	7.0	37.1	No other comparative data		

DELAYED DATA NOT PREVIOUSLY PUBLISHED

1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9
10	10	10	10	10	10
11	11	11	11	11	11
12	12	12	12	12	12
13	13	13	13	13	13
14	14	14	14	14	14
15	15	15	15	15	15
16	16	16	16	16	16
17	17	17	17	17	17
18	18	18	18	18	18
19	19	19	19	19	19
20	20	20	20	20	20
21	21	21	21	21	21
22	22	22	22	22	22
23	23	23	23	23	23
24	24	24	24	24	24
25	25	25	25	25	25
26	26	26	26	26	26
27	27	27	27	27	27
28	28	28	28	28	28
29	29	29	29	29	29
30	30	30	30	30	30
31	31	31	31	31	31
32	32	32	32	32	32
33	33	33	33	33	33
34	34	34	34	34	34
35	35	35	35	35	35
36	36	36	36	36	36
37	37	37	37	37	37
38	38	38	38	38	38
39	39	39	39	39	39
40	40	40	40	40	40
41	41	41	41	41	41
42	42	42	42	42	42
43	43	43	43	43	43
44	44	44	44	44	44
45	45	45	45	45	45
46	46	46	46	46	46
47	47	47	47	47	47
48	48	48	48	48	48
49	49	49	49	49	49
50	50	50	50	50	50
51	51	51	51	51	51
52	52	52	52	52	52
53	53	53	53	53	53
54	54	54	54	54	54
55	55	55	55	55	55
56	56	56	56	56	56
57	57	57	57	57	57
58	58	58	58	58	58
59	59	59	59	59	59
60	60	60	60	60	60
61	61	61	61	61	61
62	62	62	62	62	62
63	63	63	63	63	63
64	64	64	64	64	64
65	65	65	65	65	65
66	66	66	66	66	66
67	67	67	67	67	67
68	68	68	68	68	68
69	69	69	69	69	69
70	70	70	70	70	70
71	71	71	71	71	71
72	72	72	72	72	72
73	73	73	73	73	73
74	74	74	74	74	74
75	75	75	75	75	75
76	76	76	76	76	76
77	77	77	77	77	77
78	78	78	78	78	78
79	79	79	79	79	79
80	80	80	80	80	80
81	81	81	81	81	81
82	82	82	82	82	82
83	83	83	83	83	83
84	84	84	84	84	84
85	85	85	85	85	85
86	86	86	86	86	86
87	87	87	87	87	87
88	88	88	88	88	88
89	89	89	89	89	89
90	90	90	90	90	90
91	91	91	91	91	91
92	92	92	92	92	92
93	93	93	93	93	93
94	94	94	94	94	94
95	95	95	95	95	95
96	96	96	96	96	96
97	97	97	97	97	97
98	98	98	98	98	98
99	99	99	99	99	99
100	100	100	100	100	100

The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys  
Nevada Cooperative Snow Surveys  
Oregon Agricultural Experiment Station  
Oregon State Engineer and corps of State Watermasters  
Oregon State Highway Engineers

FEDERAL

Department of Agriculture  
Forest Service  
Soil Conservation Service  
Department of Commerce  
Weather Bureau  
Department of the Interior  
Bonneville Power Administration  
Bureau of Reclamation  
Fish and Wildlife Service  
Geological Survey  
Indian Service  
National Park Service  
War Department  
Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company  
Portland General Electric Company  
The California Oregon Power Company

MUNICIPALITIES

City of Baker  
City of Corvallis  
City of LaGrande  
City of The Dalles

IRRIGATION DISTRICTS

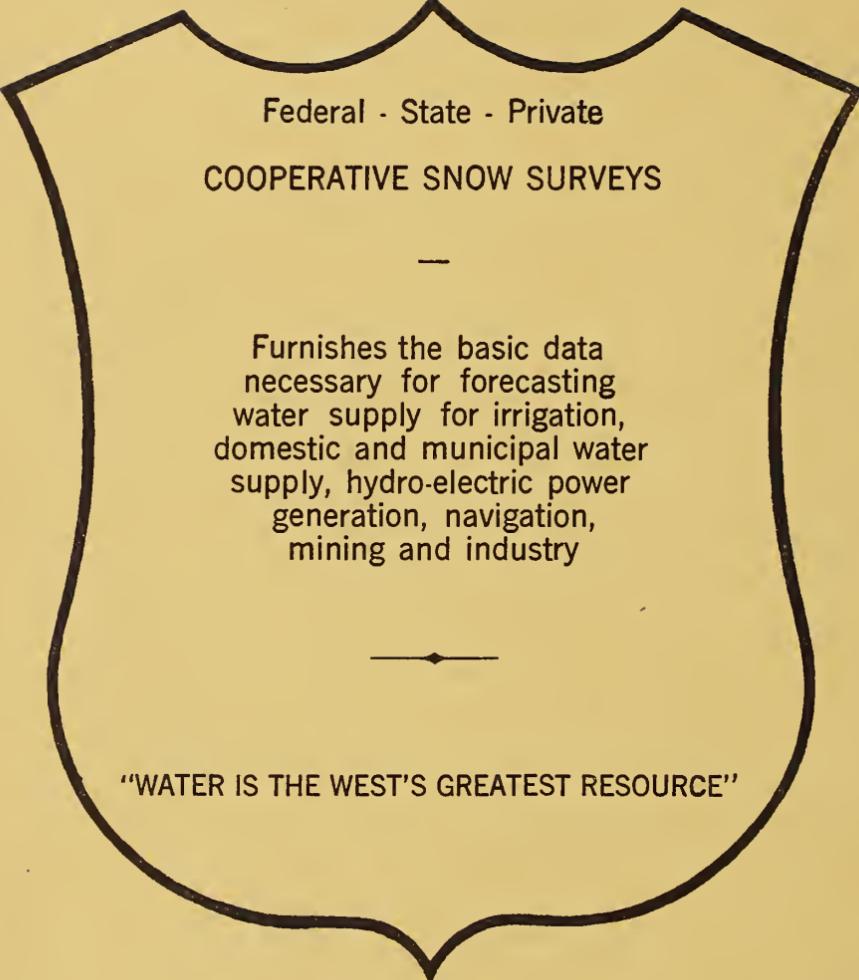
Associated Ditch Companies  
Central Oregon Irrigation District  
Deschutes County Municipal Improvement District  
East Fork Irrigation District  
Grants Pass Irrigation District  
Jordan Valley Irrigation District  
Lakeview Water Users Incorporated  
Medford Irrigation District  
Ochoco Irrigation District  
Rogue River Irrigation District  
Talent Irrigation District  
Vale, Oregon Irrigation District  
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company  
South Wasco Soil Conservation District  
The Crag Rats-Hood River, Oregon







Federal - State - Private  
COOPERATIVE SNOW SURVEYS

---

Furnishes the basic data  
necessary for forecasting  
water supply for irrigation,  
domestic and municipal water  
supply, hydro-electric power  
generation, navigation,  
mining and industry

---

"WATER IS THE WEST'S GREATEST RESOURCE"











